Peabody, Daniel (EGLE)

From: Peabody, Daniel (EGLE)
Sent: Friday, November 22, 2019 12:30 PM
To: saric.james@epa.gov; Keiser, Jeff/MKE
Cc: Julie Sims; Wesley, Jay (DNR); Miller, Megen (AG); Greg Baker - NOAA Federal; Laurie Lee; Kelly Bakayza; Furrie, Kristin (ENRD); Synk, Polly (AG); Mills, Mark (DNR); Williams, Lisa; Riley, John (EGLE); Bennett, Brian; Kirchner, Scott; John Kern; Roberts, Keegan; Ruhala, Sydney (EGLE)
Subject: EGLE Comments on Area 1 PDIWP Addendum 7 - Remedial Reach Sediment Sampling
Attachments: EGLE Comments_Area 1 PDIWP Addendum 7_Remedial Reach Sediment Sampling.docx; FINAL EGLE Comments_Area 1 PDIWP Addendum 7_Remedial Reach Sediment Sampling.pdf; A1 FS Figure 1-4a.tif; A1 FS Figure 1-5b.tif; A1 FS Figure 3-9a.tif

Jim,

Attached are EGLEs comments on the Area 1 PDIWP Addendum 7 – Remedial Reach Sediment Sampling Work Plan. Per your request I provided a Word and PDF copy of the comments. Please let me know if you have any questions.

Thanks,

Daniel Peabody
Environmental Quality Analyst
Remediation and Redevelopment Division
Michigan Department of Environment, Great Lakes, and Energy
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Kalamazoo River Superfund Site
Area 1 Pre-Design Investigation Work Plan – Addendum 7
Remedial Reach Sediment Sampling
Prepared by Wood Environment & Infrastructure Inc.
Dated Oct. 15, 2019

GENERAL COMMENTS

Commenting Organization: EGLE **Commenter:**
General Comment #: 1
Figures presented in the Area 1 Feasibility Study (FS) (Figures 1-4a, 1-5b and 3-9a) show elevated polychlorinated biphenyl (PCB) concentrations in Section 1 that are further upstream than where additional samples are proposed in the Work Plan and the FS even proposed removal of tubes near the former mill properties and Operable Unit 2. EGLE requests that sampling be completed from Morrow dam to the furthest upstream hotspot (KPT-19) to prevent incomplete delineation and delays in the remedial design and is unsure why the full extent of Section 1 was not sampled as part of the pre-design sampling plan since multiple sources of PCBs have been documented in Section 1.

Commenting Organization: EGLE **Commenter:**
General Comment #: 2
If the most-recent version Quality Assurance Project Plan (QAPP) is significantly different than the Draft QAPP then every effort should be made to follow the latest version of the QAPP since EPA disapproved and provided comments on the Draft.

Commenting Organization: EGLE **Commenter:**
General Comment #: 3
The document would benefit from the insertion of a discussion on how the Analytical Group boundaries and number of samples per Analytical Group were determined.

Commenting Organization: EGLE **Commenter:**
General Comment #: 4
The goal of a 1ppm post-remedial SWAC is inconsistent with the remedial goals and objectives for Area 1. The goal should be to achieve a post-remedial SWAC of 0.33ppm to minimize the reliance on natural recovery processes so that remedial goals and objectives (specifically, Remedial Action Objective 1 [RAO 1]) are achieved. As you are aware RAO 1 states (**bold** added for emphasis):

Protect people who consume Area 1 Kalamazoo River fish from exposure to PCBs that exceed protective levels. The RAO is expected to be progressively achieved over time by meeting the following targets for fish and sediment:

- *Reduction in fish tissue to the Michigan fish advisory level for smallmouth bass to two meals per month (0.11 mg/kg total PCB concentration) within 30 years;*
- *Achievement of a non-cancer HI of 1 and a 10^-5 cancer risk whining 30 years for the high-end sports angler; and*

- ***The above fish tissue goals for bass will be achieved by reducing the sediment PCB SWAC in each of the eight sections of the River in Area 1 to 0.33ppm or less following completion of the remedial action.***

Commenting Organization: EGLE **Commenter:**
General Comment #: 5
EGLE notes that SWACs were developed in the Record of Decision thru Interval 3 and the FS drafted by Wood (formerly AMEC) proposed sediment removal thru Interval 3 (0-24″) based on calculated SWACs. During the Remedial Design SWACs have only been developed for Interval 1 (0-6″) and 2 (6-12″). These discrepancies should be reconciled. EGLE recommends revisiting and updating the Interval 3 SWACs with the Pre-Design Investigation (PDI) data to determine if additional removal may be justified.

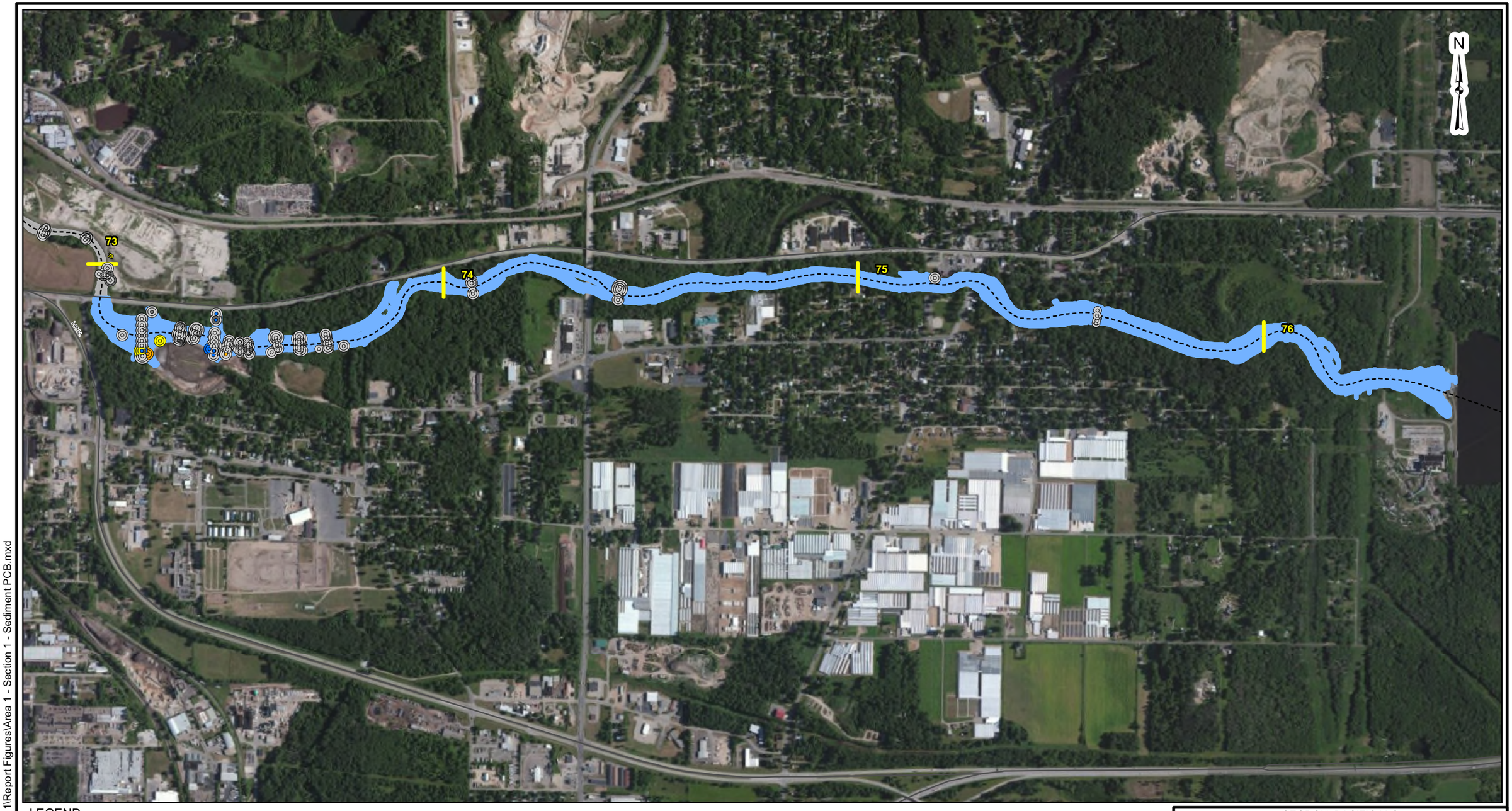
Commenting Organization: EGLE **Commenter:**
General Comment #6: The Work Plan says that upon receipt of results Wood will provide the USEPA with an evaluation and recommendation to proceed (or not) to the next Analytical Group or portions thereof, and with USEPA concurrence will release (or not) the corresponding samples for analysis. The document should identify possible outcomes and propose next steps based on those outcomes so that the full scope of the sampling plan can be understood. The document should also discuss what decision criteria are being used to determine when delineation is complete. This would allow readers to better understand the sample layout and density, and the proposed strategy for submitting and holding samples.

Commenting Organization: EGLE **Commenter:**
General Comment #7: The sections that discuss the analytical methods states samples will be analyzed for total PCBs following the QAPP, but the QAPP has more than one analytical method to measure PCBs. The Addendum should clearly state which analysis and method is being used.

SPECIFIC COMMENTS

Commenting Organization: EGLE **Commenter:**
Section: Figures **Page #: Figure 3-1b** **Lines #:**
Specific Comment #1: EGLE believes submitting the samples proposed for Analytical Group 1 (2 samples are proposed) and choosing the hold the samples for Analytical Group 2 (2 samples are proposed) provides little if any benefit and based on the heterogeneous distribution of PCBs in hotspot KPT-19 this approach may lead to incomplete delineation. EGLE recommends submitting the four samples proposed in Analytical Group 1 and Analytical Group 2 for hotspot KPT-19 and not holding the samples from Analytical Group 2 as described in the text.

Commenting Organization: EGLE **Commenter:**
Section: 2.1.1 **Page #: 2-1** **Lines #:**
Specific Comment #2: The Conceptual Site Model should be updated to include transport of PCB contaminated sediments into the floodplain during overbank flooding. Prior to completing the PDI sampling in Area 1 the assumption was that flooding would not result in appreciable deposition of PCB contaminated sediments in the floodplain along reaches of free-flowing river outside of the former impoundments. As you are aware, sampling completed as part of the PDI proved this assumption wrong.



LEGEND:

- PROPOSED REMEDIATION AREA
- REACH 1
- CONFLUENCE
- BACKWATER
- WATER BODIES
- RIVER MILE MARKER
- RIVER CENTERLINE
- ROAD

MAXIMUM CONC. IN INTERVAL (MG/KG PCB)

- <1
- 1-2
- 2-5
- 5-10
- 10-50
- >50

DEPTH INTERVALS

- 0-6 Inches
- 6-12 Inches
- 12-24 Inches
- >24 Inches

0 0.1 0.2 Miles

GRAPHIC SCALE

NOTES:

1. BASEMAPPING PROVIDED BY THE MICHIGAN CENTER FOR GEOGRAPHIC INFORMATION.
2. ORIGINAL SOURCE OF BASEMAP: ARCADIS MODIFIED WITH PERMISSION

GEORGIA-PACIFIC LLC
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

AREA 1 FEASIBILITY STUDY REPORT – MORROW DAM TO FORMER PLAINWELL DAM

AREA 1 - SECTION 1
SEDIMENT PCB CONCENTRATION BY DEPTH INTERVAL

Prepared by/Date: JMP 07/03/13
Checked by/Date: MTP 07/03/13
Project Number: 3293131541

amec

FIGURE 1-4a

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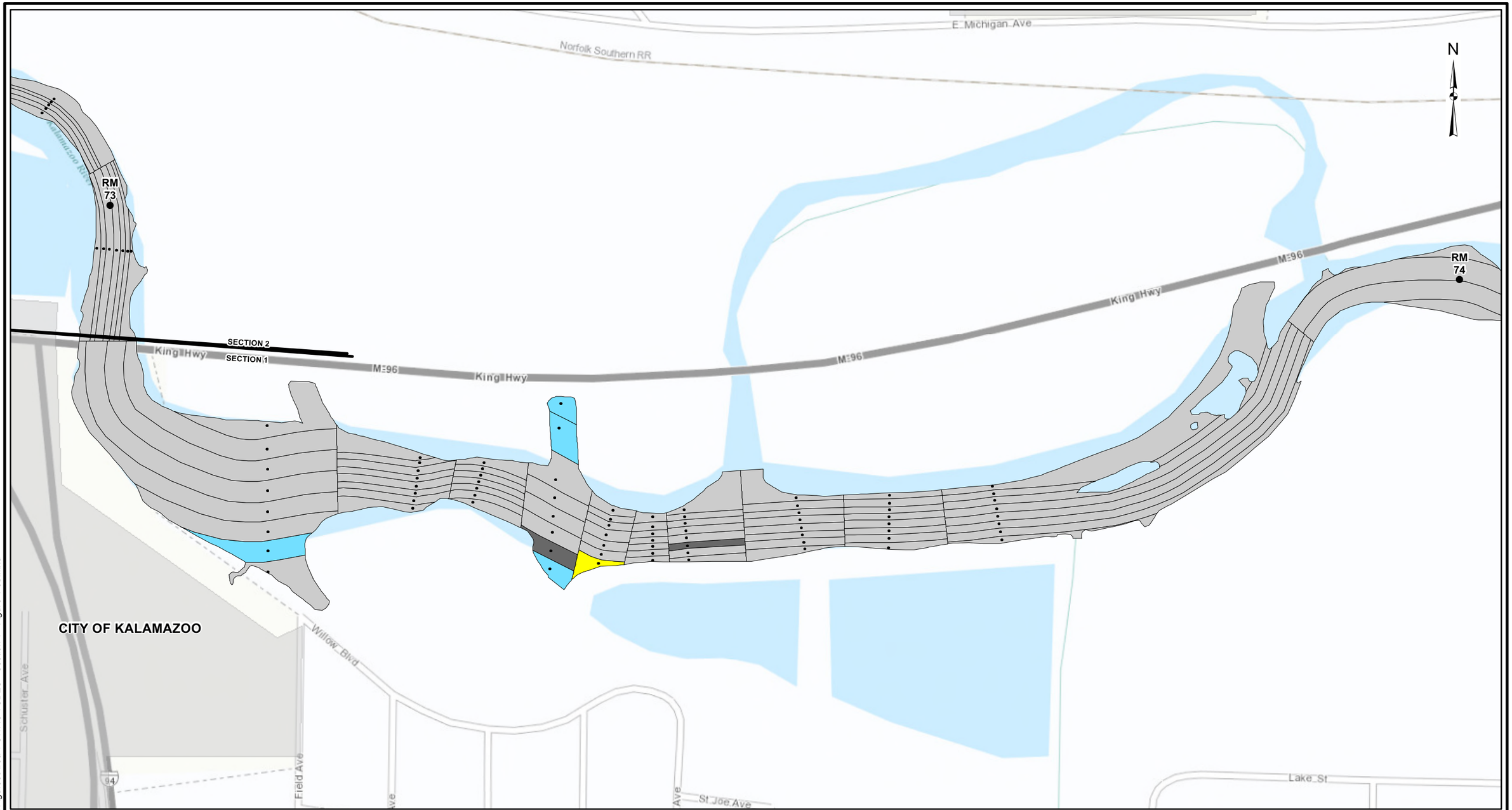

Legend

- SEDIMENT SAMPLING LOCATIONS
- RIVER MILE MARKER
- SECTION BREAKS
- AREA 1 STUDY AREA BOUNDARY

STREAM TUBES

INTERVAL PARTICIPATION WEIGHTED CONCENTRATION mg/kg

- < 1
- 1 - 2
- 2 - 5
- 5 - 10
- 10 - 50
- > 50

0 300 600 Feet

GRAPHIC SCALE

NOTES:
1. BASEMAP SOURCE: ESRI TOPOGRAPHIC MAP

GEORGIA-PACIFIC LLC
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KALAMAZOO RIVER SUPERFUND SITE

AREA 1 FEASIBILITY STUDY REPORT – MORROW DAM TO FORMER PLAINWELL DAM

SECTION 1 SWAC STREAM TUBES INTERVAL 1 (0-6") INSET

Prepared by/Date: JMP 06/13/13
Checked by/Date: MTP 06/13/13
Project Number: 3293131541

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FIGURE 1-5b

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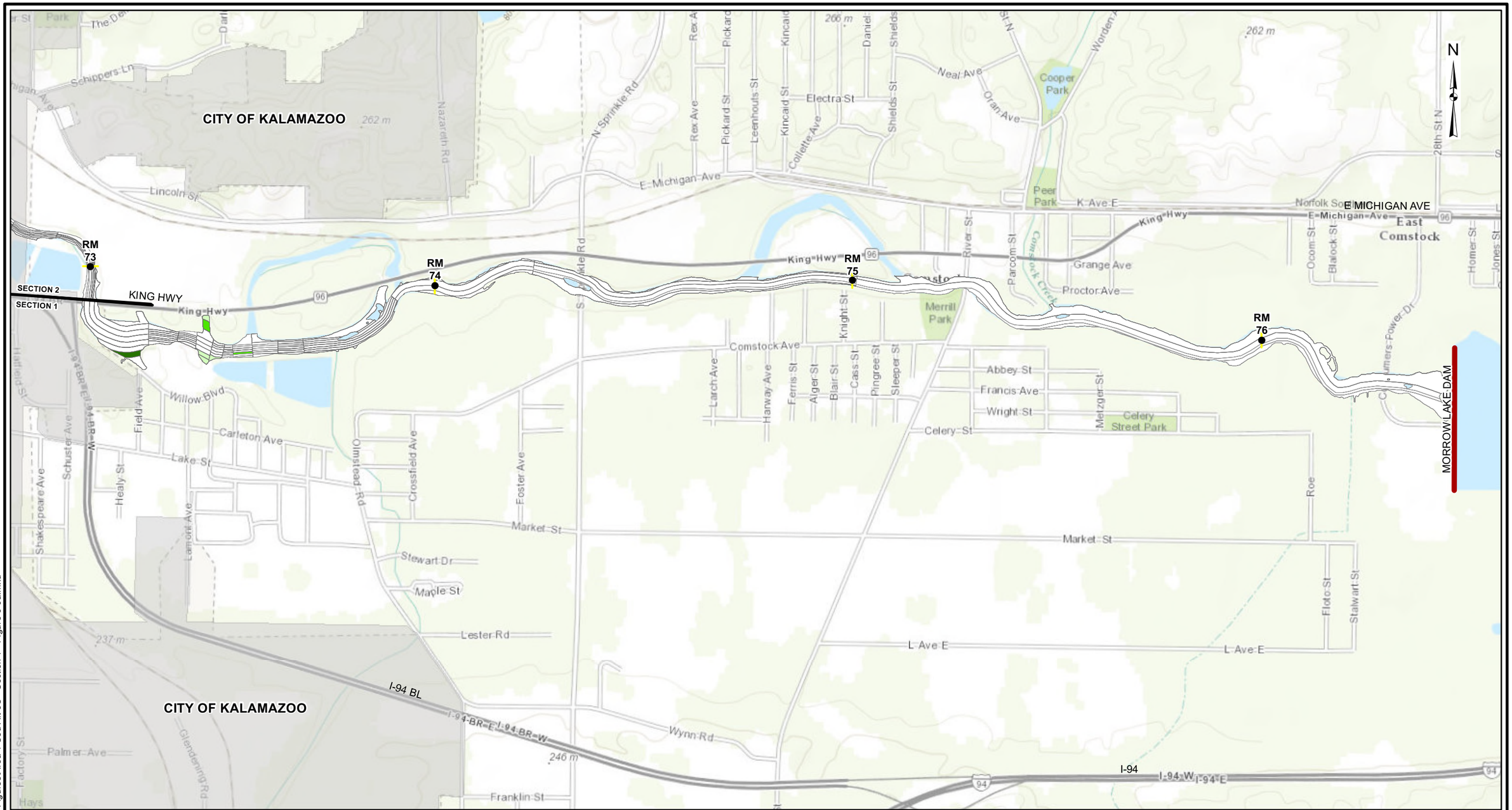

Legend

- RIVER MILE MARKER
- SECTION BREAKS
- AREA 1 STUDY AREA BOUNDARY

- Proposed Excavation of Interval One (0" to 6")
- Proposed Excavation Through Interval Two (0" to 12")
- Proposed Excavation Through Interval Three (0" to 24")

0 0.25 0.5 Miles

GRAPHIC SCALE

NOTES:
1. BASEMAP SOURCE: ESRI TOPOGRAPHIC MAP

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KALAMAZOO RIVER SUPERFUND SITE

AREA 1 FEASIBILITY STUDY REPORT – MORROW DAM TO FORMER PLAINWELL DAM

SECTION 1 FIRST 3 INTERVALS (0-24") SEDIMENT REMOVAL OF STREAM TUBES > 1MG/KG

Prepared by/Date: JMP 06/13/13
Checked by/Date: MTP 06/13/13
Project Number: 3293131541

amec

FIGURE 3-9a

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